GEOGRAPHIC NEWS BULLETIN

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THE NATIONAL GEOGRAPHIC SOCIETY

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Lhasa: Where Electricity May Displace Butter

ELECTRICITY is appearing as the advance agent of western civilization in India, according to news dispatches which say that many of the princes and rajahs are having their palaces wired. Sales of electric fans are rapidly increasing.

But where will electric lights appear more incongruous than in Lhasa, capital of Tibet, the Forbidden City, which in all its existence has been visited by only a handful of white men? Lhasa is reported making a jump into twentieth century methods by constructing a hydro-electric plant.

Terraced Castle of Potala

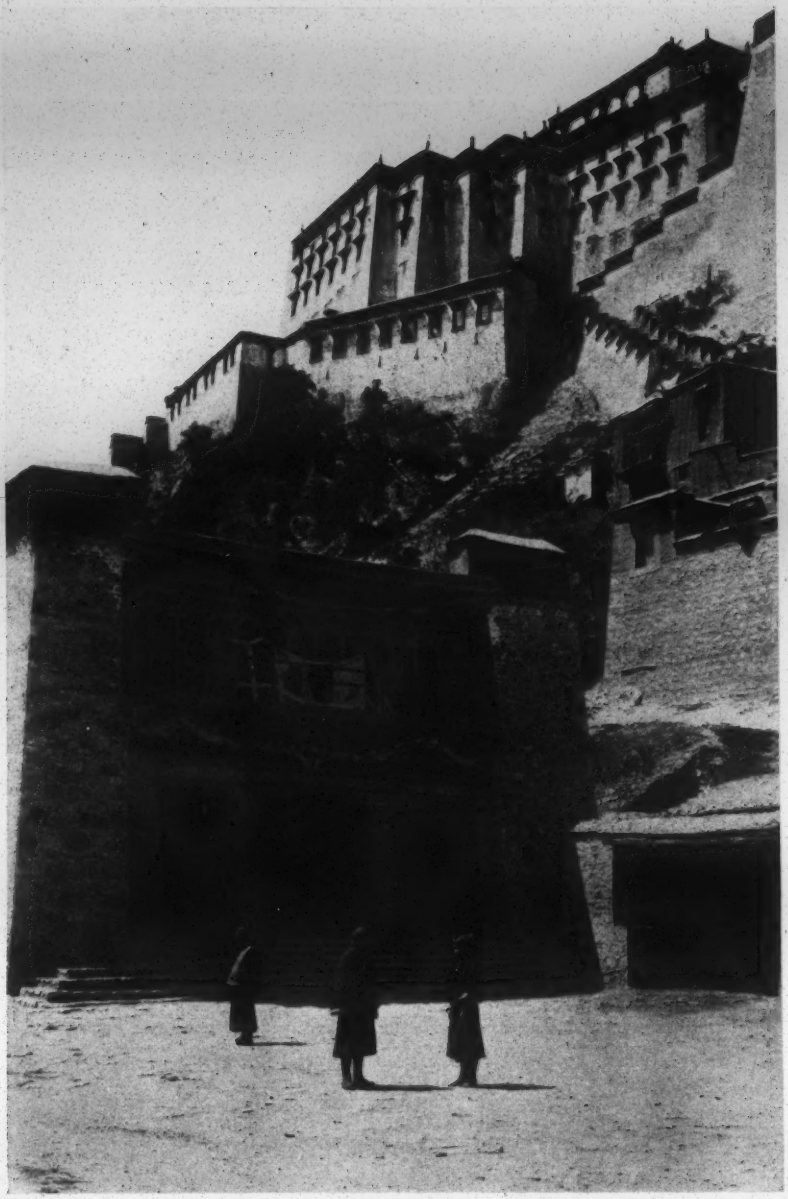
Lhasa, the Place of the Gods, is described in a communication from John Claude White to The National Geographic Society. "It deserves its name, as anything more beautiful can hardly be imagined than the vision of the sacred city set against its magnificent background of snow-capped mountains. Whether seen on a brilliant day, under a cloudless sky, during a thunderstorm, painted in soft, glowing tints by one of the wonderful sunsets seen only in Tibet, or by moonlight when with outlines softened and toned down, the Potala stands out like a phantom castle in ghostly splendor from among the shadows of its surrounding trees, all aspects are equally lovely.

"The Potala is by far the finest building and eclipses all others in the beauty of its appearance. The present Potala was commenced in 1645 by the Grand Lama Nag-wang Lob-sang-gya-tsho, on the same site as a former building; and there is no doubt, I think, that the city is an ancient one and was in existence more than 1,200 years ago, although we can find no records giving any authentic historical account.

Red-Robed Monks on Terraces

"The Potala dominates everything in Lhasa. The enormous mass of buildings, partly monastery, partly palace, and partly fortress, is built on a rocky ridge which stands out in the center of the valley, commanding the town and dominating the landscape. Its architecture is magnificently grand, bold in outline and design. It towers above everything, with its gray white walls and buttresses. It has immense flights of steps and terraces, dotted with red-robed monks ascending and descending from religious ceremonies. Its dull madder-red temple walls are relieved by carved and painted windows, showing behind black-brown yaks' hair hangings. Surmounting it are gilded roofs and it is set in almost parklike surroundings of trees and meadows, with snow-capped mountains on all sides and the Kyi-chhu, the River of Delight, running clear in many channels through groves of willow or poplar.

"It is indeed a fitting shrine for the heart of any religion, and with such surroundings it is difficult to understand how the present form of Buddhism (Lamaism), as practiced in Tibet, could ever have sunk to the depths of degradation it has reached.



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THE POTALA, CHIEF PALACE AT LHASA

The Potala dominates everything in Lhasa. The enormous mass of buildings, partly monastery, partly palace, and partly fortress, is built on a rocky ridge which stands out in the center of the valley, commanding the town and dominating the landscape (see Bulletin No. 1).

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Pearls, the Tombs of Worms

A CLOSED season of three years for pearl diving has been extended over half the Sulu Archipelago. The pearl banks were threatened with exhaustion. The Sulu Archipelago is the arm Mindanao stretches toward Borneo.

By its action the Government has stepped in to save the Philippine industry of pearl fishing.

The familiar figure of speech "casting pearls before swine," is no more violent contrast than the fact that a pearl is originated by a parasite.

A "Calcerous Concretion"

As one writer says, "The ornament associated in all ages with beauty and riches is nothing but the brilliant sarcophagus of a worm." A cross-section of a pearl shows it to be structurally just like the humble onion!

In the language of the chemist pearls are "calcerous concretions of peculiar lustre, produced by certain mollusks." In everyday language, pearls are formed in certain oysters when the oysters secrete and deposit around foreign particles, usually parasites, layer after layer of a limestone substance.

If this deposit, known as nacreous matter, is spread over the inside of the shell "mother-of-pearl" is formed; if it is formed on a "hump" of the shell a "button pearl" is the result; but if it is built around a parasite "running loose," as it were, in the soft part of the mollusk, then a genuine spherical or a pear-shaped pearl is made.

China Cultivates Pearls

Now it would occur to an ingenious-minded person that since an oyster tends to protect itself against foreign bodies by exuding nacreous substance around them that the oyster could be encouraged to make pearls to order just as bees are inveigled into making honey. Linnaeus, famous Swedish naturalist, proved to the Western world that insertion of tiny particles in oysters was equivalent to planting pearls but, as with so many of our latter-day "inventions" the Chinese had anticipated him by many centuries.

For generations the "culture" of pearls was a staple industry of several villages near Tai-Tsung, China. In early spring the "pearl growers" would collect river mussels, open their valves with a bamboo stick and insert foreign bodies therein. These were placed in shallow pools and after the lapse of months, sometimes of years, the mussels were collected, the pearls extracted, and the soft parts eaten.

Made Pearl Buddhas

Sometimes the tiny insertions would be in the shape of an image and the result would be a pearl fashioned after the matrix. Among the most remarkable of these oyster art objects were the sitting Buddhas, specimens of which are on display in the British Museum.

India is the world's treasure-house of pearls and the choicest collections of them are owned by native rulers.

UMI

Builders' Tomb Within

"But the interior of the Potala is curiously disappointing, as it consists principally of a mass of dark passages and cells, a certain number of halls and flights of steps.

"Among the larger halls were several striking ones, especially that in which was the gilt tomb of Nag-wang Lob-sang-gya-tsho; the dome of this hall extended upward through several stories. On the tomb there was a great deal of metal ornamentation and the whole formed a fine piece of work. On each side of the principal tomb were similar ones of smaller dimensions, those of Dalai Lamås less notable.

"In another room of fairly large dimensions the walls were lined with shelves from floor to ceiling, each shelf closely packed to its uttermost extent with images of Buddha. There must have been thousands of all metals—gold, silver, copper, brass—and many were of very beautiful workmanship. In another chapel there were hundreds of golden butter lamps.

Could House Thousands of People

"It would be impossible to give even a semblance of a plan of this conglomeration of buildings, and it would take weeks, perhaps months, to visit every part of the enormous structure, capable of holding thousands of people.

"From the flat roofs of the Potala the whole valley lies mapped out below—the town to the east, a mass of low, two-storied, substantially built houses interspersed with temples; the Jo-Khang, the most holy shrine in Tibet; the Chagpori, or school of medicine; the Turquoise Bridge (Yutok Sampa), so called on account of its green-blue tiled roof; the many channels of the River of Delight (the Kyi-chhu), beyond which lies the Arsenal, and to the north the Monastery of Sera under the hills, containing 5,000 monks. Farther on the Debung Monastery with 10,700 inmates; the gilded roofs of the Na-chung-chos-kyong; and the Ling-Kor, the Sacred Road, along which all devout Buddhists prostrate themselves in the hope that all their earthly sins may be forgiven, could be seen in places.

"There are monks everywhere in or near Lhasa. The three large monasteries of Sera, Debung and Gah-dan alone contain about 20,000 and with all the other temples and monasteries the number cannot fall far short of 30,000, while the lay population of Lhasa only amounts to about 15,000 of whom 9,000 are women.

Bulletin No. 1, March 16, 1925.

Form for Renewal of Bulletin Requests

Many requests for the GEOGRAPHIC NEWS BULLETIN were made for the year ending with this issue. If you desire the Bulletins continued kindly notify The Society promptly. The attached form may be used:

School Service Department,
National Geographic Society,
Washington, D. C.

Kindly send.....copies of the GEOGRAPHIC NEWS BULLETIN for the school year beginning with the issue of....., for classroom use, to

Name.....

Address for sending Bulletins.....

City..... State.....

I am a teacher in.....school.....grade.

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Croatia's Hub, a Spotless Town

ZAGREB'S position as headquarters of one of the leading political parties of Yugoslavia has afforded it considerable excitement during the recent elections in that state. It is the hub city of the Croat division of this nation of Serbians, Slovenes and Croatians.

Zagreb, or Agram, as it used to be known, sits in the lap of the Croatian hills and looks off across a fertile plain. The city is divided into three parts, one of which contains the Palace of the Banus, who under the rule of Austria-Hungary was the local administrator, and is reached by a funicular or by winding streets from the lower town.

Up from the railway station, almost to the main square of the city, there runs a fine Mall in the midst of whose lawns there are various fine public buildings and a little to the left, as one looks toward the hills behind the city, there are the beautiful grounds and buildings of the University of Zagreb, which is unsurpassed in all Yugoslavia.

Croatia, a Picture-Book Land

Zagreb has a fine museum where one can see the lovely peasant costumes of Croatia, which, like those of Bohemia, Moravia and Slovakia, did much to give Austria-Hungary an enviable reputation as a museum of loveliness. Each region has its own pattern, some heavy with gold on black silk, others brighter with reds and yellows massed on white. Croatia is a picture-book land in which the distinctive dresses of the peasants are the best of illustrations. The region of Zagreb has its own lovely costume. To see it at its best one must attend a market day in the great square named after Count Josef Jelacic, Croatia's most famous banus, whose part in the Croatian Revolution of 1848 won him the love of his fellows and the honors of Vienna.

Except on market-day this great square is a drab, uninteresting place. Early in the morning on the days of the market long lines of tables are placed on the cobbles until they reach to the very tables of the coffee houses along the southern side, and the country roads are alive with attractive figures, clothed in their holiday best, en route to the market.

Men's Dress Colorful, Too

The waists and skirts of the women are of white, embroidered up and down the front, around the waist and across the apron. Around the head is worn the Slavic shawl, that form of self-beautification which reduces the high cheek-bones of the Slav to a pleasing oval that would honor a Madonna of Italy.

The women are both venders and shoppers. But many a sturdy wife is assisted by the presence of her picturesque man, whose costume is just as colorful as her own. His rather full white trousers are worn loose or strapped in at the bottom with the thongs which secure the sandals and his heavily embroidered shirt hangs down outside to a truly Slavic length. The yellow vest, with scores of bright buttons and gay stitching is likely to be worn unbuttoned, unless his shirt lacks ample decoration.

The Gaekwar of Baroda has a sash made of one hundred rows of pearls with a tassel of pearls tipped with emeralds. His Highness possesses what probably is the most valuable jewel ornament in all the world—a shawl of pearls, ten feet long, six feet wide. This shawl, or rug, literally is woven of strings of pearls and its center and border are set with diamonds. It is worth several millions of dollars.

Romans Flavored Wine with Pearl Dust

A necklace of eight strings of pearls which are said to be the finest specimens in India, and also worth millions, is owned by the Rajah of Dholpur.

Pearls too tiny for commercial use are known as "seed pearls." In India these are ground up, and because of their lime content, chewed with betel nut. The Romans, you will recall, though they prized pearls as ornaments, flavored their wine with powdered pearls.

The coasts of Ceylon and India are the classic homes of the pearl, in later years the South Sea Islands, Australian waters, the Gulf of California and the Caribbean have yielded pearls.

Romance of the Fisheries

The adventures of the pearl fisheries—the India divers who go armed with spikes to fight the sharks and the South Sea women divers who anoint their bodies with oil before they make their plunges—offer fascinating chapters of human customs. But that is another story.

Bulletin No. 2. March 16, 1925.

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MARKET DAY IN ZAGREB, CROATIA

Buyers and sellers come to market in their embroidered best. Each village has its variation of the Croatian costume, so the market place presents a colorful sight. The Gypsies dress themselves in even brighter colors than the Croatians but the Gypsy colors often clash (see Bulletin No. 3).

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Tiruvannamallai: A Pilgrim Center in India

THOUGH WALES has a town name running into 59 letters, South India boasts many important towns whose names can at least create difficulties. Tiruvannamallai, for example, has little chance of getting publicity in American newspaper headlines.

Tiruvannamallai is one of the chief pilgrim centers of South India but is little visited by Europeans. This ostracism is not because the occidental cannot pronounce the name to ask his way, as one wag suggests. Tiruvannamallai has forty large chuttrams, or rest houses, while the only provision for the foreigner is a small bungalow of two rooms.

Climb "Holy Fire Hill"

Two great festivals every year and a fair every Tuesday assure the gathering of large numbers of natives. During the Kartigai festival in November or December, 100,000 pilgrims visit the finely carved temple or climb the "Holy Fire Hill" which gives the town its name. At such times, cholera frequently takes a heavy toll and for many years attempts have been made to improve the water supply.

Four roads meet at Tiruvannamallai, three of them crossing the alluvial plain toward the north, south and east. The fourth road carries a heavy traffic over the Chengam Pass into the Salem District. Thus the town is not only a famous religious center but an important entrepot of trade as well.

South Arcot, the district in which Tiruvannamallai is found, sweeps up from the harborless Coromandel coast fronting on the Bay of Bengal to the Eastern Ghats. These hills mark the fall line between the plain and the plateau which drives south like a wedge from the Deccan and splits Madras Presidency into two widely dissimilar regions. Great expanses of reserved forests clothe these hills and the sandalwood and teak found there form some of the most important assets of the region. Leopards, small bears, deer and wild hogs abound and there are several favorite shooting grounds near at hand.

Subject to Severe Storms

Although the district is usually comparatively dry, it is subject to destructive floods and the severe storms which sweep the coast have done great damage, not only to the hapless natives but to shipping as well. In 1760 a blockading fleet, operating against the French, whose capital city, Pondicherry, cuts into the District, was scattered with considerable loss of life.

But the main interest in Tiruvannamallai is the fire festival, whose inception recalls one of the famous legends connected with Hindu mythology. Many ages ago, the legend runs, Siva, the destroyer, and his wife, Parvati, were wandering through Kailasa, the Hindu paradise. It was the twilight hour and the flower garden in which they strolled was filled with the seductive perfumes of the East. In a flirtatious moment, Parvati playfully covered the eyes of her lord with her shapely hands and drew the godly head to her bosom.

The time quickly passed for these two wanderers in Elysium. But what seemed but a moment to them was a period of many years for the hapless inhabitants of the world whose sun and moon had thus been darkened. When

Almost always one is likely to see some of the Gypsies of the region and spattered with fire as is the white costume of the Croatian women, they seem lacking in color when a Gypsy woman strides by. Her head shawl is a blaze of Turkey red. The massive red flowers or other designs in her waist may or may not be carrying on silent war with the tone of the headdress, but if by any chance they harmonize, the bright colors around the bottom of the apron surely do not.

Gypsies Wear Cart-Wheel Necklaces

The Gypsy woman's main decoration, besides the bright rings of base metals, is a long necklace of the huge silver cart-wheel currency which bears the head of Francis Joseph and helped to make him popular throughout the now defunct empire of the Hapsburgs.

Behind the city there are lovely valleys reaching into the hills and livened with singing brooks on their way to the Save, with pleasant peasant houses flanked by huge haycocks hiding in the trees, and along the ridges are scattered the eeries of suburbanites who love the air.

Here too, is one of the finest wild parks in Europe, its vegetation untamed and full of beauty, with benches pleasantly located to look off across the city and the valley of the Save.

A Spotless Town

But perhaps the prevailing impression of the visitor is not concerned with loveliness which nature has lavished on the surroundings but the way in which man has kept the place attractive. The tables of the coffee shops are as spotless as the white skirts of the women and as soon as the market is over, usually at noon, the cobbles are polished till they shine. Every bench, lettuce leaf or plum pit is spirited away so that its presence may not add a touch of variety to the great grey square in which, but a few hours before, a thousand gaily dressed people surged back and forth in the eternal drama of barter and sale.

Out in the wide plain beyond the Cathedral there is an amusement park or circus ground where the Croatian peasant follows his main delights of eating, drinking, singing and dancing. But with nightfall these colorful folks are well out on the white roads which lead to their farms. The woman toils along under a large willow basket with the newly-purchased geese rubber-necking from their elevated coign of vantage. The man's brimless black felt hat, compromise between dunce-cap and derby, with its bright band around it, is perched over one ear, and he wears a yellow vest, studded with small brass buttons until one can scarcely see the leather, flapping idly beside his care-free bosom. A veritable spotless town, Zagreb emphasizes the labor of women in a way which reminds one of the electric sign in which a woman is constantly fighting dirt.

At evening time the citizens invade the square which during the day has been crowded with country folk and the hundreds of little tables outside the coffee shops become centers of discussions which deal with everything from politics to love.

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Bouvet: Loneliest Island in the World

REQUESTS FROM the outlying settlements in Alaska asking better mail facilities from Congress, raise the question of what are the world's loneliest places. Probably the loneliest island in the world is Bouvet Island in the Antarctic.

Two of its nearest inhabited neighbors to the north are Tristan da Cunha, another lonely bit of land rising out of the sea on the longitudinal ridge of the Atlantic Ocean, which supports only about 75 people, and Cape Town on the southern tip of Africa, both of which are about 1,200 miles away.

So far as now is known, no one lives on Bouvet Island; in fact, few noted explorers ever visited it, few whalers or sealers ever sighted its snowy outlines against the cold South Polar skies, and for a long time its very existence was doubted.

Found By French Explorer

The French explorer, M. des Loziers Bouvet, in 1738, while following the southern ice-pack for a considerable distance and marveling at the great flat-topped Antarctic icebergs which swung into his line of vision, first sighted a high land covered with snow which looked to him like a great headland. He was unable, however, to determine whether this new land he had discovered was an island or a part of a continent. But the captain of the "Aigle" presented his pilot with a handsome sum of money for directing the vessel toward a hitherto uncharted piece of land and he called the headland which first caught his eye "Cap de la Circoncision," in honor of the day of the discovery—a name which it still bears.

The desire to solve the problem presented in this mysterious bit of land in the ocean tempted the explorer to put his ships at it for twelve days, but the great sheets of ice which bore down upon him, together with the heavy fog, proved as effective as a hostile fleet in making him keep his distance from the shore.

Rediscovered 161 Years Later

For many years his discovery of the island was doubted, other mariners arguing that he had sighted only icebergs, but he had found land in latitude 54° 26′ S. and longitude 3° 24′ E. a fact which was verified 161 years later, within our own memory, when Professor Chun of Leipzig in the "Valdivia" confirmed the Frenchman's claims.

Though it has been said that Bouvet Island has not the remotest connection with any of the other islands or lands of the Antarctic, it is generally believed that its fauna, climate, and physical characteristics will prove to be Antarctic in character, but there are as yet no reports on which to base such statements.

The "Valdivia" expedition satisfied the world that Thompson Island did not exist and that the previously reported Lindsay and Liverpool Islands were identical with Bouvet Island, which is described as being volcanic and covered with one vast glacier.

Siva realized the hardship which his wife's coquetry had caused, he sent her forth to do penance at the various holy places with which the southern portion of India is dotted. When she at last reach Tiruvannamallai, the famous "Holy Fire Hill" of South Arcot district, Siva appeared at the top of the isolated peak, as a sign that his wife's thoughtlessness was forgiven.

Burn Beacon on Mountain Top

At the foot of the hill, just outside the town, lies the fine temple of Tiruvannamallai. It is to this place that the pilgrims flock on the occasion of the festival which commemorates the reconciliation of their chief god and goddess. The culminating figure of the celebration is the lighting by the priests of a beacon fire on the summit of the hill, which can be seen for many miles throughout the district.

So heavy is the rush of pilgrims to see the blaze on the summit that strict police control is needed throughout the 48 hours that the fire usually burns. Camphor and clarified butter or ghee, brought as offerings by the pilgrims, make up a large part of the fuel. The festival, which lasts for ten days, ends with this sacrificial fire which commemorates the forgiveness of Parvati by Siva and the return of light to a darkened world.

Temple Gates Are Books of Mythology

The large Siva temple is among the most interesting in South India for from the slopes of the sacred mountain which blushes red with the coming of the morning sun, one can look down upon this typical Dravidian temple and see how, with the increasing wealth of the shrine, successive courts were added around the central "mandapan." The outer wall, embellished by four large "gopurams" or entrance gateways, is most impressive of all. These gopurams, or gopura, which somewhat correspond to the pylons of the Egyptian temples, are in themselves books of mythology. The thousands of figures on their sloping sides picture scenes from Hindu mythology.

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IMAGES ON MYSTERIOUS EASTER ISLAND

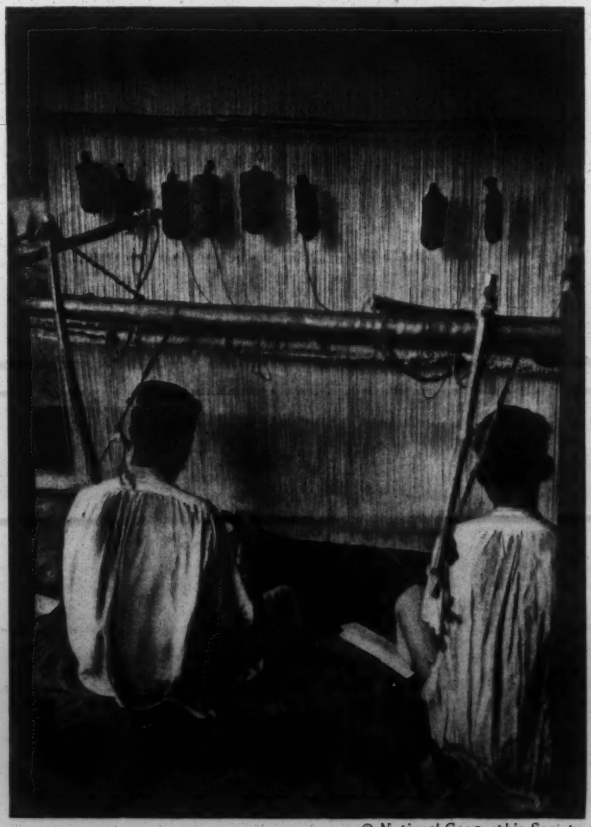
This is another isolate and lonely island in the broad expanse of southern seas. The great carved masks, curious monuments of a dead race, give no hint of the secrets they have guarded for centuries (see Bulletin No. 5).

Reported Seal Catch There

A landing was not made on the island, however, and no trees could be seen through the telescope, though Bouvet and Lindsay, a whaler, had thought they noticed trees or shrubs. Captain Benjamin Morrell reported that during his Antarctic voyage of 1822–23 he visited Bouvet Island and caught many seals there.

Soundings in the immediate vicinity of the island have proved that it is located in a fairly regular and deep depression on the ocean bottom measuring more than 10,000 feet in depth.

Bulletin No. 5, March 16, 1925.



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AT WORK ON A LARGE CARPET IN AMRITSAR

India has had a great influence on the development of the art of weaving. Many of our names for textiles bear testimony to India's work in this field. Calico takes its name from Calicut, madras from Madras, cashmere from Kashmir, and chintz from an Indian word (see Bulletin No. 4).